19980310.ba v01_n962.bam.980310

>From ???@??? Wed Mar 11 11:13:59 1998
Message-Id: <199803102026.OAA16430@sco.theporch.com>
Date: Tue, 10 Mar 1998 14:26:48 CST
Subject: BOATANCHORS digest 1962

BOATANCHORS Digest 1962

Topics covered in this issue include:

1) Re: ECO's
by Mike <ac5p@ionet.net>
2) Free paper stuff
by "Al Parker" <awparker@worldnet.att.net>
3) Re: Still looking: SRR-11 parts and pieces
by Edward Zeranski <ejz@nosc.mil>
4) Puyallup Mike and Key Hamfest
by Kevin Gallagher <wire2liv@gomontana.com>
5) Re: LOW RADIATION RECEIVERS and non linear follow on..
by Edward Zeranski <ejz@nosc.mil>
6) Keys arrived from Spain!
by "Roberta J. Barmore" <rbarmore@indy.net>
7) AC Capacitor for Transfomer
by Tom Taylor <ttaylor@Adobe.COM>
8) CV Transformer
by Scott Robinson <spr@earthlink.net>
9) 70 volt line matching transformers
by Scott Robinson <spr@earthlink.net>
10) Low Radiation Receivers-the Scott side of the story
by Scott Robinson <spr@earthlink.net>
11) Collins collectors in Europe ? Gear for sale
by "Ragnar Otterstad" <otterstad@inet.uni2.dk>
12) Re: Low Radiation Receivers-the Scott side of the story
by Ho4bart <Ho4bart@aol.com>
13) Re: LOW RADIATION RECEIVERS and non linear follow on..
by Ho4bart <Ho4bart@aol.com>
14) Re: low radiation receivers (verbose)
by Ho4bart <Ho4bart@aol.com>
15) Re: AC Capacitor for Transfomer
by Bill Jarvis <B.H.Jarvis@hw.ac.uk>
16) RE: AC Capacitor for Transfomer
by "Owens, Clarence" <owensc@nebeng.otis.com>
17) Re: Low Radiation Receivers-the Scott side of the story
by "A. B. Bonds" <ab@vuse.vanderbilt.edu>
18) Re: LOW RADIATION RECEIVERS and non linear follow on..
by William Donzelli <william@ans.net>
19) Tek 190B Usefulness?

by don merz <71333.144@compuserve.com>
20) Re: Low Radiation Receivers-the Scott side of the story
by Ken Gordon <keng@uidaho.edu>
21) WTB: Clegg Zeus
by "Greg Parsons A.K.A. Rat" <gregp@mis.net>
22) Re: Tek 190B Usefulness?
by Al Klase <skywaves@bw.webex.net>
23) Re: ECO's
by "Roberta J. Barmore" <rbarmore@indy.net>
24) Re: Tek 190B Usefulness?
by Ken_Warren@beavton.k12.or.us (Ken Warren)
25) Re: Tek 190B Usefulness?
by Ken Gordon <keng@uidaho.edu>
26) Re: Tek 190B Usefulness?
by "Arden Allen" <aallen@sirius.com>
27) Re: Keys arrived from Spain!
by john <johnmb@mindspring.com>

Date: Mon, 9 Mar 1998 21:49:15 -0600 (CST)
From: Mike <ac5p@ionet.net>
To: pmonroe@jadebbs.com
Cc: boatanchors@theporch.com
Subject: Re: ECO's
Message-ID: <199803100349.VAA10324@mail.ionet.net>

At 08:21 PM 3/9/98 -0600, you wrote:

>I don't own any ARRL handbooks earlier than 1948 so don't know if connecting the suppressor and screen grid in an ECO was also popular with the Newington crowd. The 1934 and 1935 editions of the Thoradson Transmitter manual also show ECO's with suppressor and screen connected.

My 1934 ARRL hdbk shows the grids tied together then bypassed to ground. The '49 edition shows the top screen directly grounded with the screen grid bypassed to ground for rf.

> My questions are:
>
>1. When was the ECO invented and was this its original connection?

Terman's Radio Engr Handbook gives credit to J.B. Dow, Proc.I.R.E., Vol.19,p2095, December, 1931. The R.E.H., 1943 edition page 480, fig. 1-f shows only a tetrode tube for the circuit so not sure about your connection questions.

73, Mike ac5p

Date: Mon, 9 Mar 1998 20:00:02 -0800
From: "Al Parker" <awparker@worldnet.att.net>
To: "BAList-porch" <BOATANCHORS@theporch.com>
Subject: Free paper stuff
Message-ID: <19980310041928.AAB10505@awphome>

In preparation for cross country move, I've got a list of STUFF which might interest some, this posting is free for postage, later stuff will be for a small price. Most will go for the $3 priority rate, which is easy, a couple are heavier. I've tried to make groups that might be worth $3 to the receiver.

2. 7 Tucker Elec. catalogs, '91 - '94. Good ref. for test eqpt
3. 1 Fair Radio cat., WS-90, with Fall supplement
 1 Jan Xtal cat., 1977
 1 Radio Works cat., 1991
 1 Texas Towers cat., May, 1994
 1 Am. Elec. Supply cat., Fall/Winter 1990
4. 1 "73" mag, April, 1977 wind ur own fil. xfrmr, downspout vertical, etc.
 1 Popular Electronics, Aug. 1976 build a 1 mc freq. ctr for $30
5. 1 pkg of early '80s VHF/UHF weak signal work, incl:
 30 pgs, 902mhz Notes, by Don Hilliard, W0PW
 2 pgs hi-gain long yagi for 70 cm, by Joe Riesert, W1JR
 4 pg fm QEX 12/81, VHF/UHF low noise preamps, by G. H. Krauss, WA2GFP
 5 pgs "some GaAsFET Preamps" from Eimac notes, W6PO design
8. 3 issues "VHF/UHF & Above" Info. Exch. 12/85-2/86 KA0HPK, ed.
 4 issues DUBUS VHF/UHF Tech. reports, in English & German, '85 qtrly
 1 issue DUBUS VHF/UHF/SHF TECHNIK II, 10/84 compendium of 96 reports from previous 5 years
9. 1 Allied Radio cat., 1981
 1 KLM cat., 1976-78
 1 Hi-Gain cat., 1987-88

73, Al, W8UT
11829 Norfolk Place
Dublin, CA 94568
awparker@worldnet.att.net

Date: Mon, 09 Mar 1998 21:02:42 -0800

From: Edward Zeranski <ejz@nosc.mil>
To: badger@telalink.net
Cc: boatanchors@theporch.com
Subject: Re: Still looking: SRR-11 parts and pieces
Message-ID: <3.0.1.32.19980309210242.006e07fc@marlin.nosc.mil>

At 08:41 PM 3/9/98 -0600, you wrote:
>Was hoping my last post would at least get a "you have got to be
>crazy" reply. But it got none....
>
>Thanks to all on the list for their patience
>
>
>Tom KA4RKT

Tom,

I don't remember the SRR RX series as being all that good but I only had to work on them for a short while before the things were replaced. Out back I have some solder in tubes that may be the ones you need for your receiver. Send a note of what you need and they will be passed on. Later I worked on guidance radar and countermeasures using that same technology, kind of on the cusp, part xster part solder in tubes. Nothing here uses those tubes so if I have parts you can use they are yours for postage, same for acquaintances. Good luck w/your sets.

Ed Zeranski This is a private opinion or statement.
home email: ezeran@cris.com

Date: Mon, 09 Mar 1998 21:53:07 -0700
From: Kevin Gallagher <wire2liv@gomontana.com>
To: "boatanchors@sco.theporch.com" <boatanchors@sco.theporch.com>
Subject: Puyallup Mike and Key Hamfest
Message-ID: <3504C732.B2977501@gomontana.com>

Hi all, I thought Terry did a great job of remembering what was to be had at Puyallup! I had to drag home that 390a, but at least it came with a cart! I just wanted to tell everyone that helps put on and organize this fest,"Thanks for the good job!" It's well worth a 1600 mile trip, just to attend. Kevin

----

Date: Mon, 09 Mar 1998 21:52:08 -0800
From: Edward Zeranski <ejz@nosc.mil>
To: z931086@corn.cso.niu.edu
Cc: boatanchors@theporch.com
Subject: Re: LOW RADIATION RECEIVERS and non linear follow on..
Message-ID: <3.0.1.32.19980309215208.006e7ef4@marlin.nosc.mil>

At 09:00 PM 3/9/98 -0600, you wrote:
>When I was working in electronic warfare some years back, I got
>interested in the history of it. ....

Apparently, the Germans were not cognizant of our X-band airborne sub finding radars.

Somewhere I have an article about the German WWII ecm rx sensors being illuminated by Allied search radars then producing a large noise signature which was easily painted/tracked by Allied search radars. Any other BA folk seen this?

It was TooB Techno after all so a legal subject/thread. And to make it real legal, anyone know how a 15E tube was used? While looking for grain o' wheat solder in tubes for a BA members SRR RX two of the 15E tubes resurfaced. These look like acorn tubes on steroids and are NIB dated 1945 manufactured by Farnsworth. Will look for the U boat article and will wait for 15E replies.

By the way, Andy Miller just sent the announcement that the Military Radio Collectors Group will be at Camp San Luis Obispo CA on May 2. I did the mailout last year but work has gotten in the way and Andy has jumped in to take up the slack. He is at:

Andy Miller
22702 Picador DR
Salinas, CA 93802
408-484-2389
amillertkx@aol.com

I can also be contacted here or:
Ed Zeranski
4712 Coronado AVE
San Diego, CA 92107
619-553-2640 work/voicemail(work)
ezeran@concentric.net...or...reply 619-223-3242 (home)
will pass on copies of event info

Ed Zeranski This is a private opinion or statement.
home email: ezeran@cris.com

Date: Mon, 9 Mar 1998 23:12:54 -0500 (EST)
From: "Roberta J. Barmore" <rbarmore@indy.net>
To: BA <boatanchors@sco.ThePorch.com>, glowbugs@piobaire.mines.uidaho.edu
Subject: Keys arrived from Spain!
Message-ID: <Pine.SUN.3.96.980309224701.16814A-100000@indy3>

Hi, Gang!

Well, the nice brass & hardwood keys arrived today from Llaves Telegraficas Artesanas, and they are as-illustrated: the wood's good, the brass is shiny (though clearly hand-done)...and by gosh, they *work!*

The "Bodoplex" sideswiper has a very nice feel; it's a real pivot & compression-springs design, with a comfortable paddle, though it's almost too low. (Then again, I have not tried it where I have enough room to get my forearm on the desk--probably better there). Still, I can make decent Morse with it, which is a good trick for *any* sideswiper on short practice!

The bug is an unusual design, which I have only seen once before (a HB job in the old "Radio" magazine): there's no seperate dash arm! Instead, the same leaf-sping used for the vibrating arm flexes, providing the spring tension when making dashes. Works very well--took a few minutes to slow it down to ~10wpm and convince myself that this bug really does use the damper to center up the lever. A "double-paddle" end on the lever, similar to the older Les Logan Speed-X jobs and of generous size and unique shape, works quite nicely. The "trombonist" (a sliding tube over the rod-end of the vibrating arm, which carries the adjustable weight) is a splendid notion; there's an O-ring in a groove in the far end of the rod that holds the tube firmly but allows one to slide it.

Both keys are fairly small, about 5.5"x3" and 2" tall. These are hand-made and they look it; there are a minor few tool-marks on the brass parts here and there, but just the little dings of brass that's put to honest work, nothing ugly and all the parts are polished and laquered.

So I like 'em. Your mileage may vary. (And they do come with nice little promotional ball-pont pens--perhaps a hint to the new user that it's best to send no faster than you can copy? <grin>)

73,
--Bobbi

(PS: I owe everybody in the universe e-mail right now--hope to get to it soon. Had to put in some extra time at work today, shuttling a replacement power supply into the big rig. Weight, 470 lbs, it's a good thing they're on little wheels! It's slow going, "driving" them to where they'll fit in the space provided, sort of like parallel-parking in a shoebox...!)

KB9GKX "RJ" rbarmore@indy.net   Roberta J. (Bobbi) Barmore
FISTS #3388 * ARRL * RSGB * WIA
Appreciator Of Vacuum-Tube Ham Gear and Vintage Keys

Date: Mon, 9 Mar 1998 22:26:58 -0700
From: Tom Taylor <ttaylor@Adobe.COM>
To: boatanchors@theporch.com
Subject: AC Capacitor for Transfomer
Message-ID: <v03007801b12a7dbdf8e0@[144.7.22.45]>

I have a large never used transformer made by C. V. Transformer Co. The transformer has two
115v ac windings. The schematic that came with the transfomer shows the two windings
connected in parallel. The transformer has a center-tapped secondary that shows both
50 and 60 hz outputs at 13.4-15.7 VDC @ 12 to 65 amps. So far so good. The schematic
also shows an additional winding that simply has a 40uf 370 VAC capacitor connected
across the winding. The winding has a common and a tap for 50 and 60 hz.

What is the function of the winding with the AC capacitor?

Thanks,
Tom, N7TM

Tom Taylor
ttaylor@adobe.com

Date: Mon, 9 Mar 1998 23:02:33 -0800
From: Scott Robinson <spr@earthlink.net>
To: boatanchors@theporch.com
Subject: CV Transformer
Message-ID: <v03007800b12a94e72be6@[153.34.140.240]>

Tom Taylor wrote,

I have a large never used transformer made by C. V. Transformer Co....The schematic also shows an additional winding that simply has a 40uf 370 VAC capacitor connected across the winding. The winding has a common and a tap for 50 and 60 hz.

What is the function of the winding with the AC capacitor?

and Scott sez:

Well, the "CV" turns out to be a hint. This is probably a Constanta Voltage transformer, better known to me as a Sola transformer. The Sola company made lots of them and the name stuck.

The transformer is run into saturation, making lots of lamination buzz and heat, and the capacitor resonates that third winding-hence the 50 Hz and 60 Hz taps. The output voltage turns out to be proportional to the frequency rather than the voltage.

Regards,

Scott Robinson
spr@earthlink.net

Junque is GOOD for you!

Date: Mon, 9 Mar 1998 23:28:38 -0800
From: Scott Robinson <spr@earthlink.net>
To: boatanchors@theporch.com
Subject: 70 volt line matching transformers
Message-ID: <v03007802b12a99e3578f@[153.34.140.240]>

Folks,

I read with interest Charles Cheney's measurements of the inductance of such a Radio Shack transformer. I can suggest a wasy to interpret his data.

A perfect transformer would just change the load impedance and impose no load on the source by itself. The first limitation of most transformers is that their inherent inductance shunts the load. Therefore the low frequency response is limited by decreasing impedance of the inductance that appears in parallel with the load. The effect this will have on the response depends on teh source impedance of the receiver output.

Since most BA receivers have pentode outputs and no feedback, their output impedances are quite high, at least 10 times the rated load (600 ohms in this case) so if the matching transformer has too low an inductance, teh bass will be attenuated.

The 3 dB off point will be

f= R/2*pi*L

where R is 600 ohms in this case and L is the measured inductance for the 5 or 10 W tap at Charles' lowest frequency, 300 Hz I think.

Regards,

Scott Robinson
spr@earthlink.net

Junque is GOOD for you!

Date: Mon, 9 Mar 1998 23:18:46 -0800
From: Scott Robinson <spr@earthlink.net>
To: boatanchors@theporch.com
Subject: Low Radiation Receivers-the Scott side of the story
Message-ID: <v03007801b12a96a09369@[153.34.140.240]>

Folks,

The following account is a summary of events described in the book "E. H. Scott, The Dean of DX," by Marvin Hobbs. For those who don't know, E. H. Scott was doing serious DX (Chicago BC band station heard in New Zealand) in the twenties, both to prove his designs and as publicity for his radio manufacturing company. He was building serious radios for quite some time before Bill Halligan started Hallicrafters.

Early in the war, E. H. Scott and Marvin Hobbs, his chief engineer, visited the Navy in Washington DC to see what they could do. The Navy at that time was very concerned about LO radiation, based in part on their past use of regenerative receiveer in WWI. Hobbs had previously worked designing car radios and had learned a great deal about RF isolation by shielding vibrator power supplies. He aplied this knowledge to the LO problem and succeeded in meeting the Navy's criteria. RCA's Maritime division and National both tried but, according to Hobbs' account, failed to pass this criterion.

The Scott radios involved are the RBO adn RCK Navy radios, and later the SLR-M.

This book is quite interesting; I recommend it. Antique probably still carries it.

Regards,

Scott Robinson
spr@earthlink.net

Junque is GOOD for you!

Date: Mon, 9 Mar 1998 16:47:08 +0100
From: "Ragnar Otterstad" <otterstad@inet.uni2.dk>
To: "Old Tube Radios" <boatanchors@theporch.com>
Subject: Collins collectors in Europe ? Gear for sale
Message-ID: <199803100744.IAA23851@inet.uni2.dk>

If there are any Collins afficionados in Europe on this reflector who would have an interest in acquring a 32V2 or S-line   (S3) plse drop me a line

73   Rag oz8ro in Copenhagen

Date: Tue, 10 Mar 1998 03:18:52 EST
From: Ho4bart <Ho4bart@aol.com>
To: boatanchors@theporch.com
Subject: Re: Low Radiation Receivers-the Scott side of the story
Message-ID: <6ad05c67.3504f76e@aol.com>

In a message dated 98-03-10 02:41:03 EST, spr@earthlink.net writes:

> The Scott radios involved are the RBO adn RCK Navy radios,
> and later the SLR-M.

---the RCK is a vhf receiver, however, isn't it? was it built by scott?
i would delete this nomenclature and substitute SLR-12.
hue

Date: Tue, 10 Mar 1998 03:24:40 EST
From: Ho4bart <Ho4bart@aol.com>
To: boatanchors@theporch.com
Subject: Re: LOW RADIATION RECEIVERS and non linear follow on..
Message-ID: <aaf8728d.3504f8ca@aol.com>

In a message dated 98-03-10 00:48:50 EST, ejz@nosc.mil writes:

> And to make it
> real legal, anyone know how a 15E tube was used?

---wasn't that the power oscillator tube in the ASB 400 mc/s airborne
radar transmitter? used 2 or 4, i forget, having disposed of my ASB
set. my experience with those tubes suggests to me that in service,
they must have required frequent replacement due to shock damage,
their filaments seem to be *very* mechanically fragile.
hue

Date: Tue, 10 Mar 1998 03:37:32 EST
From: Ho4bart <Ho4bart@aol.com>
To: boatanchors@sco.theporch.com
Subject: Re: low radiation receivers (verbose)
Message-ID: <51d03d67.3504fbce@aol.com>

In a message dated 98-03-09 13:39:45 EST, jproc@idirect.com writes:

>
> " Ships would maintain radiotelephone watch on 2410 kilocycles
> and a VHF watch using TBS equipment (60 to 80 Mc) while still
> maintaining the broadcast. Anytime that a U-boat was spotted, out
> went the alarm to the escorts on 2410 kc. On many occasions, the
> sighting would also be reported to other ships by flashing light.
> The frequency of 2844 kc was used for secondary ship-to-shore
> communications."
>
> (Quoted from a WW2 Sparkers diary).

>
> I'm not sure if this fits into the same context that you had in mind. If
> 2410 was used to report a U-boat, the opportunity to DF the transmitting
> Allied ship might present itself to other U-boats.
>
> Comments?
> Regards,
> Jerry Proc VE3FAB

---that's news to me, all the accounts i have read indicate both SOS and
SSS (sighted submarine) calls were sent on 600 meters - and that the
U-boats listened there too, for just that purpose.
my comment that the U-boats found no traffic was inspired by an article
in a sea-history magazine of 1-2 years back with an article by an ex-
U-boat mariner commenting on the submarine war. he stated that U-boats
listened on "123 meters" (if i recall correctly......) band, but found no
ship traffic. can get you the exact reference, later.....and maybe a copy.
ps- i talked to a coastguard OM some years back who told me on the
west coast they could often hear the 600-meter SSS and SOS calls from
the North Atlantic.
hue
hue

Date: Tue, 10 Mar 1998 10:01:47 +2400
From: Bill Jarvis <B.H.Jarvis@hw.ac.uk>
To: ttaylor <ttaylor@Adobe.COM>
Cc: boatanchors <boatanchors@theporch.com>
Subject: Re: AC Capacitor for Transfomer
Message-ID: <199803101001.KAA07089@punt1.hw.ac.uk>

On 1998-03-10 ttaylor@Adobe.COM said:
tt>I have a large never used transformer made by C. V. Transformer Co.
tt>The transformer has two
tt>115v ac windings. The schematic that came with the transfomer shows
tt>the two windings
tt>connected in parallel. The transformer has a center-tapped
tt>secondary that shows both
tt>50 and 60 hz outputs at 13.4-15.7 VDC @ 12 to 65 amps. So far so
tt>good. The schematic
tt>also shows an additional winding that simply has a 40uf 370 VAC
tt>capacitor connected
tt>across the winding. The winding has a common and a tap for 50 and
tt>60 hz. What is the function of the winding with the AC capacitor?
tt>Thanks,
tt>Tom, N7TM
tt>Tom Taylor

tt>ttaylor@adobe.com

It MIGHT be to reduce the phase angle, and therefore the mains supply current, when whatever the transformer powers is not frunning flat out.

That would permit smaller gauge primary wiring and fuse.

We don't usually do much to reduce phase angle in domestic equipment, although many fluorescent lights and washing machines have such Cs because of their inherent L.

But in factories where "wattless" currents could be huge and a great nuisance, phase correction is common.

Bill
GM8APX, qthr=No 6, EH4 6JY==No Rectangulars=Cave Felem==Ikke Hawkering

Possunt quia posse videntur

Net-Tamer V 1.10 - Registered

Date: Tue, 10 Mar 1998 09:20:00 -0500
From: "Owens, Clarence" <owensc@nebeng.otis.com>
To: Old Tube Radios <boatanchors@theporch.com>, Tom Taylor <ttaylor@Adobe.COM>
Subject: RE: AC Capacitor for Transfomer
Message-ID: <0EPLWMR0H00EYN@mailman.otis.com>

Hi Tom and all,

You have a ferroresonant transformer. The winding with the cap resonates at 50 or 60 Hz (make sure you get the right cap value and the right tap!!) This provides a good measure of regulation for the output of the other secondary because it saturates the portion of the core that has the secondaries, and an almost square wave output waveform that is much easier to filter than the usual xfrmr output. These transformers are also self limiting; usually the short circuit secondary current is about 150% of the max rating and they usually are pretty much self protected against gross overheating as a result. Makes fusing the primary a problem though. You really need to put a fuse or circuit breaker in the secondary. The one downside is that they're usually quite noisy; the saturated core tends to hum/buzz a lot.

73,

Clare Owens N2RJB
owensc@nebeng.otis.com

From: Tom Taylor
To: Old Tube Radios
Subject: AC Capacitor for Transfomer
Date: Tuesday, March 10, 1998 12:26AM

I have a large never used transformer made by C. V. Transformer Co. The
transformer has two
115v ac windings. The schematic that came with the transfomer shows the
two
windings
connected in parallel. The transformer has a center-tapped secondary
that
shows both
50 and 60 hz outputs at 13.4-15.7 VDC @ 12 to 65 amps. So far so good.
The
schematic
also shows an additional winding that simply has a 40uf 370 VAC
capacitor
connected
across the winding. The winding has a common and a tap for 50 and 60 hz.

What is the function of the winding with the AC capacitor?

Thanks,
Tom, N7TM

Tom Taylor
ttaylor@adobe.com

Date: 10 Mar 1998 09:14:04 -0600
From: "A. B. Bonds" <ab@vuse.vanderbilt.edu>
To: boatanchors@sco.theporch.com
Subject: Re: Low Radiation Receivers-the Scott side of the story
Message-ID: <1998Mar10.091406-0600@spike.vuse.vanderbilt.edu>

In <v03007801b12a96a09369@[153.34.140.240]>, Scott Robinson wrote:
>
>The Scott radios involved are the RBO adn RCK Navy radios, and later the SLR-M.
>
Also the RCH, at least according to the manual.
A. B. Bonds

Date: Tue, 10 Mar 1998 10:41:07 -0500 (EST)
From: William Donzelli <william@ans.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: LOW RADIATION RECEIVERS and non linear follow on..
Message-ID: <Pine.GSO.3.96.980310103943.11861H-100000@titan.purch.ans.net>

> It was TooB Techno after all so a legal subject/thread. And to make it
> real legal, anyone know how a 15E tube was used? While looking for grain
> o' wheat solder in tubes for a BA members SRR RX two of the 15E tubes
> resurfaced. These look like acorn tubes on steroids and are NIB dated 1945
> manufactured by Farnsworth. Will look for the U boat article and will wait
> for 15E replies.

These were used in all sorts of Navy IFF interogators - BL, BN, etc..

15R is the rectifier version.

William Donzelli
william@ans.net

Date: Tue, 10 Mar 1998 11:35:18 -0500
From: don merz <71333.144@compuserve.com>
To: boatanchors@theporch.com
Subject: Tek 190B Usefulness?
Message-ID: <199803101138_MC2-3637-F1AA@compuserve.com>

Hi. I picked up a signal generator that is a bit odd. It's a Tektronix 190B Constant Amplitude Signal Generator. The idea is that the amplitude of the output remains constant as the frequency is varied as long as the load limits specified are adhered to. The manual say that this signal generator "is useful for making frequency response measurements of broadband devices operating in the frequency range from 350kc to 50mc."

The output pf this thing is through a special cable and attenuator that terminates in a PL-259 plug.

What is the primary purpose of this signal generator? Clearly, it is not designed for your average workbench alignment chores. It is useful for testing 'scope bandwidth (though some of my 'scopes are so old that they don't even reach into the bottom of the range of this thing). But how often do you need to do that? I need to decide whether this thing is useful enough to keep around...

Any enlightenment appreciated.
73, Don

Date: Tue, 10 Mar 1998 08:47:14 -0800 (PST)
From: Ken Gordon <keng@uidaho.edu>
To: Ho4bart <Ho4bart@aol.com>
Cc: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Low Radiation Receivers-the Scott side of the story
Message-ID: <Pine.BSF.3.95.980310084645.25416B-100000@piobaire.mines.uidaho.edu>

On Tue, 10 Mar 1998, Ho4bart wrote:

> In a message dated 98-03-10 02:41:03 EST, spr@earthlink.net writes:
>
> > The Scott radios involved are the RBO adn RCK Navy radios,
> and later the SLR-M.
>
>
> ---the RCK is a vhf receiver, however, isn't it? was it built by scott?
> i would delete this nomenclature and substitute SLR-12.

My favorite of those Scotts is the SLR-F. Excellent receiver.

Ken W7EKB

Date: Tue, 10 Mar 1998 14:10:41 -0500
From: "Greg Parsons A.K.A. Rat" <gregp@mis.net>
To: clegg@qth.net
Cc: boatanchors@theporch.com
Subject: WTB: Clegg Zeus
Message-ID: <2.2.32.19980310191041.00689560@204.68.227.2>

Hey gang,
 This is my quarterly beg for a Clegg Zeus <g>. I you have one out
there gathering dust give me a yell, 606-276-3380 after 6pm EST.
 I have a manual for one now thanks to a fellow list member, I still
need a manual for my Clegg Interceptor, so if you have one of those
let me know also, all the e-mail addresses in the .sig file are good.

73,
 Greg
 ke4ooo

```
-------------------------------------------------------------------------------
| Greg Parsons     KE4OOO   gregp@mis.net gregp@lfucg.com   gregp@stdio.com     |
| AMI #865   DoD 862    Who has the coffee? Better yet, who has the Ale8one?  |
| NRA Life, SCCA, SCA      http://www.stdio.com/~gregp   http://www.lfucg.com |
|     "Religiones antiquae et arma ridiculae non comparant cum                |
|       bono telo eruptionis igneae latero te, puer." Hanno Solare            |
-------------------------------------------------------------------------------
```

Date: Tue, 10 Mar 1998 14:10:56 -0500
From: Al Klase <skywaves@bw.webex.net>
To: 71333.144@compuserve.com
Cc: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Tek 190B Usefulness?
Message-ID: <35059040.47E7F32D@bw.webex.net>

don and The Group,

Had one of these years ago and passed it along to someone else. It's a total dinosaur if you have a real lab-grade signal generartor like a URM-25 or an HP-606. The 606 has a leveled output and I suspect the URM-25 does too. This is a useful feature that you don't find on TV repair grade instruments. The 190 also suffers from lack of modulation, i.e. it's CW only. One of it's possibly endearing features is it's ability to deliver something like 10 volts into 50 ohms, that's two watts.

Hope this helps,
Al

don merz wrote:
>
> Hi. I picked up a signal generator that is a bit odd. It's a Tektronix 190B
> Constant Amplitude Signal Generator. .....
 I need to decide whether this thing is useful enough
> to keep around...
>

--
Al Klase - N3FRQ
skywaves@bw.webex.net
Flemington, NJ 08822
Web Page: http://www.webex.net/~skywaves/home.htm

Date: Tue, 10 Mar 1998 09:08:05 -0500 (EST)
From: "Roberta J. Barmore" <rbarmore@indy.net>
To: Paul Monroe <pmonroe@jadebbs.com>
Cc: BA <boatanchors@sco.ThePorch.com>
Subject: Re: ECO's
Message-ID: <Pine.SUN.3.96.980310083240.24160A-100000@indy3>

Hi, Paul!

The ECO dates back to the introduction of screen-grid tubes (also known as shield-grid tubes, which is a clue) in the 1920s. If I remember right, the design (as written up in QST) was by a Navy Captain--can't bring his name to mind.

The trick to 'em is isolation of the oscillating circuit (K, G1, and SG serving as plate) from the output side (P); the RF is "electron-coupled" to the plate, via the stream of electrons carrying the oscillatory waveform. (Arrgh! I've been reading a bad book about Tesla's inventions and it's affecting my vocabulary).

You want very good isolation between the plate & the rest of the works; this is accomplished by running the screen at RF ground but is limited by the extent to which the screen functions as a shield. Actually, it's "shielding" the grid from the plate by replaing the normal G-P capacitance of a triode with G1-G2 (G2 at ground) and G2-P capacitance; the effect should be (and generally is) that the feedback path for the osc does not include the plate of the tube.

Well, the better the "screening," the less varying plate loads affect the the osc. side of things; and the more current the "virtual triode plate" can carry *above* what you actually use, the more stable the osc will be, too (reduction of heating effects, etc.). Taking those factors into account, it makes sense, when using a pentode in an ECO, to tie G2 and G3 together. Putting G3 at DC (as well as RF) ground helps the screening but doesn't buy you any more "virtual plate" area.

Anyway, there's my take on it. I note a similar design (6SJ7, G2 & G3 tied) in the '46 "Radio"/E&E HB, patterned after a design by G. W. (George, of many articles in "Short Wave Craft" fame) Shuart according to the text. No explanation given. Not bad--25W out with three RF tubes: 6SJ7, 6SK7, 807. Shares ECO billing with a triode-osc, three-tube 10W design (6J5-6V6-6V6) slicked-up from an earlier (at least '41) example that used a 6L6 o/p. What they seem tio be about is showing the reader two good approaches, and letting him (or her) decide.

...Earlier (but post-1935) vfo examples in the library here are mostly beat-freq "conversion" types, in which the eco runs at MF; the 600-800kc/s range was typical. Then the output was mixed with an xtal osc to get coverage of the band desired. Complex but it's much easier to get good stabilty from the eco that way.

All of these eco/vfo setups are value-for-money based. The OTs were well aware that the less work the eco stage had to do, the better stability they could achieve (assuming proper control of thermal effects, etc.); but the trade-off was more tubes, more tuned circuits, and more expense. The impetus was to get the best performance from the least number of tubes. 10-25W was a typical "target" range for the output, enough to replace the xtal osc in most rigs of the day.

73,
--Bobbi

KB9GKX "RJ" rbarmore@indy.net   Roberta J. (Bobbi) Barmore
FISTS #3388 * ARRL * RSGB * WIA
Appreciator Of Vacuum-Tube Ham Gear and Vintage Keys

Date: Tue, 10 Mar 1998 12:41:32 -0700
From: Ken_Warren@beavton.k12.or.us (Ken Warren)
To: boatanchors@theporch.com
Subject: Re: Tek 190B Usefulness?
Message-ID: <2255810558.940320@beavton.k12.or.us>

A dinosaur indeed I remember using these on the test bench at tek (a lot of years ago), unfortunately we don't all have an HP generator sitting around. The 190 and the newer version 191 were used on the test bench at Tek for checking the bandpass of the vertical amps on the scopes. I don't know if the URM-25 is supposed to have a leveled output but if it does it dosn't work very well. For sure not as well as the 190. Although I haven't tried this I would think that the 190 would be good for manually sweeping a filter to check the bandpass.

Ken Warren K7RPX

Ken_Warren@beavton.k12.or.us
KenwK7RPX@worldnet.att.net
--
Beaverton School District
Beaverton, Oregon

Date: Tue, 10 Mar 1998 11:54:23 -0800 (PST)
From: Ken Gordon <keng@uidaho.edu>
To: Al Klase <skywaves@bw.webex.net>
Cc: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Tek 190B Usefulness?
Message-ID: <Pine.BSF.3.95.980310115201.29087A-100000@piobaire.mines.uidaho.edu>

> i.e. it's CW only. One of it's possibly endearing features is it's
> ability to deliver something like 10 volts into 50 ohms, that's two
> watts.

Hmmmmm...sounds like an excellent basis for a LARGE VFO....

Ken W7EKB

Date: Tue, 10 Mar 1998 12:15:42 -0800
From: "Arden Allen" <aallen@sirius.com>
To: "Old Tube Radios" <boatanchors@theporch.com>,
        "Arden Allen" <aallen@calimetrics.com>, <Ken_Warren@beavton.k12.or.us>
Subject: Re: Tek 190B Usefulness?
Message-ID: <199803102013.MAA11030@calimetrics.com>

> URM-25 is supposed to have a leveled output but if it does it dosn't work
very well.

No, the URM-25 does not have a leveled output. The HP606A does not either
but the HP606B does. When "sweeping" a filter, the filter must "see" it's
designed for source and terminating impedances if you want to
observe/measure the pandpass correctly. Just hooking up a leveled signal
won't do the job.

Arden Allen KB6NAX aallen@sirius.com

Date: Tue, 10 Mar 1998 15:22:49 -0500
From: john <johnmb@mindspring.com>
To: rbarmore@indy.net, boatanchors@theporch.com
Subject: Re: Keys arrived from Spain!
Message-ID: <199803102023.PAA03007@camel8.mindspring.com>

At 11:12 PM 3/9/98 -0500, you wrote:
>

> Hi, Gang!
>
> Well, the nice brass & hardwood keys arrived today from Llaves Telegraficas Artesanas

Mine too!

I ordered the ball-bearinged straight key , and it too is a very nice piece. Being hand built it does have some imperfections (I just finished the NorCal Keyer Kit, and while MY key doesnt have these scuffs, I spent far too many hours on them to achieve that finish! :-)). The woodwork is wonderful, and I love the little dished surface of the knob itself. It's startling how little touches like this can make a dramatic difference in the "feel" of a key. It feels great!

The one downside (which may not actually be) is that there is really no "contact" in this key. A pointed stud set in the base acts directly on the lever arm of the key. The contact area is likely only 1/64" in diameter, and although I have nothing to substatiate this with, seems likely to wear into the lever arm itself (I have a fairly "heavy" keying style"!). Perhaps this is unfounded worry, and I'll keep an eye on it.

A NICE touch is that all parts are orderable as replacements. I'm already thinking of sending off for some more of those dished knobs to add to some of my other keys.

I'm certainly thinking of adding the bug to my shack as well!

Best 73
/John

End of BOATANCHORS Digest 1962
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